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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,056	09/22/2003	Marek T. Włodarczyk	97-1051DIV	7282

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EXAMINER

HEALY, BRIAN

ART UNIT	PAPER NUMBER
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2883

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/668,056

Applicant(s)

WLODARCZYK ET AL.

Examiner

Brian M. Healy

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-30 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/22/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of claims 1-10 and 12-30 is withdrawn in view of the newly discovered reference(s) to Paritsky et. al., U.S.P. No. 5,771,091 and Komachiya et. al., U.S.P. No. 5,693,936.. Rejections based on the newly cited reference(s) follow. The Examiner regrets any inconvenience to Applicant caused by this action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paritsky et. al., U.S.P. No. 5,771,091 in view of Zuckerwar et. al., , U.S.P. No. 5,200,610.

Paritsky et. al. 091' teaches (Figs.1-9, Note especially Fig. 5) an optical fiber pressure/temperature sensor comprising: at least one pair of optical fibers 8,10 attached to a light source 14 and receiver 18 that is used in conjunction with measuring/collecting circuitry 20 with a reflective coated diaphragm 28 that can be rigid or resilient , which is made of a reflective material and includes a spherical section for increasing the sensitivity of the optical fiber pressure/temperature sensor. The spherical section diaphragm of Paritsky et. al. appears to be convex rather than concave however the terms "spherical" would be fully inclusive of such shapes as convex, concave,

ellipsoidal, hyperbolic, parabolic, etc., and a skilled artisan is expected to know these shapes that encompass a "spherical" surface. It would be well within the purview of a skilled artisan to make the spherical reflective diaphragm into a concave surface. The pressure/temperature sensor of Paritsky et. al. 091' also can be used as a sensor in automobiles.

Zuckerwar et. al., U.S.P. No. 5,200,610 teaches (Figs.1-8) an optical fiber pressure sensor comprising: at least a pair of optical fibers 12,13, for transmitting and receiving optical signals placed in a ferrule-like structure 54,52,42 and the optical signals reflect from a curved concave shaped diaphragm or membrane 21 which then yields a pressure read-out using detector electronics.

Since Paritsky et. al. 091' and Zuckerwar et. al. 610' are both from the same field of endeavor, optical fiber pressure/temperature sensors, the purpose of using a diaphragm with at least one concave shaped reflection section, as is taught by Zuckerwat et. al. 610', would have been recognized in the spherically reflective pressure/temperature optical fiber sensor, as is taught in the pertinent art of Paritsky et. al. 091'.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the spherical reflective diaphragm used in the optical fiber pressure/temperature of Paritsky et. al. in order to use concave shaped reflective diaphragm sections, as is taught by the optical fiber pressure/temperature sensor of Zuckerwar et. al. , for the purpose of increasing the sensitivity of an optical fiber sensor.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Komachiya et. al., U.S.P. No. 5,693,936.

Komachiya, U.S.P. No. 5,693,936 teaches (Figs.1-43) an optical fiber sensor for use in the fuel injection system of an internal combustion engine comprising: an optical fiber 2,520 for sensing engine pressure (Note although a single fiber is shown there can be mode fibers in the same sensor for detecting other parameters such as temperature) which can be held in a ferrule-like structure and placed in direct contact with the fuel injector/ fuel air mixture in an internal combustion engine and used in conjunction with a pressure sensitive diaphragm so that received optical signals can be received and processed using photodetector/receiver/microcomputer circuit means, which clearly, fully meets Applicant's claimed limitations.

Because the new grounds of rejection, this office action has NOT been made final.

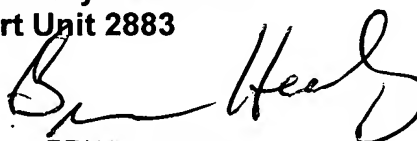
The following reference has also been cited by the Examiner as being pertinent art: Watts et, al., U.S.P. No. 5,013,150 (Figs.1-7).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. Healy whose telephone number is (571)272-2347. The examiner can normally be reached on Compressed. Schedule Mon.-Fri. 6AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571)272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian M. Healy
Primary Examiner
Art Unit 2883



BRIAN HEALY
PRIMARY PATENT EXAMINER